

EETD Lessons Learned Statement

Improper Transportation and Storage of Sealed Radioactive Sources June 2003

An EETD employee failed to follow proper procedures when transporting sealed radioactive sources to Lawrence Berkeley National Lab (LBNL) and storing the sources in a laboratory building there. Two aerosol neutralizers were borrowed from a lab on the UC Berkeley campus for use in experiments at LBNL. Each aerosol neutralizer contained 2 mCi Kr-85. They were transported in a personal car without notifying the Radiation Protection Group (RPG) and then stored in a laboratory that was not properly marked as containing radioactive sources.

The error was discovered during a routine radioactive source inventory conducted at UC Berkeley. Upon discovery, the sources were properly packaged by RPG and returned to the UC Berkeley Radiation Safety Office.

The employee was aware of policies and procedures for transporting and storing radioactive materials, but accidentally disregarded these procedures during this incident. The laboratory where the aerosol neutralizers were stored at LBNL was rarely used during the time they were there and they were mostly forgotten about. The employee had used the same aerosol neutralizers for several years while he was a graduate student and was very comfortable with them. They contain a low level of radiation and they were routinely transported between rooms when in use at UC Berkeley. The sources were labeled as radioactive, but he had become conditioned to seeing these labels and their impact had diminished from repeated viewing. Thus, he did not recall the need to contact the RPG when transporting the materials.

The incident gave the employee the opportunity to be re-educated on the requirements for transporting and storing sealed radioactive sources. The proper procedures were reviewed and it was reinforced that these procedures are required even for sources with very low-levels of radiation. The current system works well. We must be aware of the hazards involved with handling, transporting and storing of radioactive materials. Also, employees should take time to consider warning signs that are posted; these signs often give a strong first impression, but their effectiveness at communicating danger can be reduced if the sign is seen repeatedly. The RPG must be consulted before transporting any sealed radioactive source to or from LBNL. Rooms where radioactive sources are stored must be properly labeled. When in doubt, consult the LBNL Health and Safety Manual, LBNL PUB-3000 at <http://www.lbl.gov/ehs/pub3000/>. Chapter 21 of this document contains information relevant to Radiation Safety.